IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method, comprising:

presenting a program guide identifying audiovisual data and designating a set start time and a set stop time for the identified audiovisual data;

receiving at a set-top box audiovisual data from a desired transmission channel beginning at the set start time;

if said audiovisual data is not compressed according to a predetermined format, compressing said received audiovisual data according to said predetermined format;

in response to receiving a request for recording compressed audiovisual data selected from the program guide prior to the set start time for the selected compressed audiovisual data identified in the program guide, storing dynamically, in a mass storage device and for a predefined period of time, the selected compressed audiovisual data received from said desired transmission channel to be included in a title plan generated by a time shift scheduler, wherein said title plan includes information identifying the selected compressed audiovisual data stored dynamically, wherein the selected compressed audiovisual data has a variable duration extending beyond the set stop time, wherein storing the selected compressed audiovisual data dynamically at the set-top box comprises:

identifying a content stream associated with the selected compressed audiovisual data using a title identification code, the title identification code identifies the content stream as being time-shifted content and provides a data stamp associated with the content stream associated with the selected compressed audiovisual data;

over-allocating memory in the mass storage device to record the selected compressed audiovisual data having a variable duration extending beyond the set stop time;

determining a final length of the selected compressed audiovisual data; and

deallocating any over-allocated memory not used to record the selected compressed audiovisual data having a variable duration extending beyond the set stop time after the final length of the selected compressed audiovisual data is determined; and

~~allocating a first portion of memory in the mass storage device for recording a first portion of the selected compressed audiovisual data having the variable duration extending beyond the set stop time for subsequent access by users;~~

~~utilizing said allocated first portion of memory to record the first portion of the selected compressed audiovisual data having a variable duration extending beyond the set stop time;~~

~~allocating an additional portion of memory in the mass storage device to record a next portion of the selected compressed audiovisual data having the variable duration extending beyond the set stop time in response to utilizing said allocated first portion of memory;~~

~~utilizing said allocated additional portion of memory to record the next portion of the selected compressed audiovisual data having a variable duration extending beyond the set stop time;~~

~~determining when reception of the selected compressed audiovisual data having the variable duration extending beyond the set stop time has terminated;~~

~~repeating said utilizing and said allocating said additional portion of memory until the selected compressed audiovisual data having the variable duration extending beyond the set stop time is determined to have terminated so that all of said selected compressed audiovisual data having a variable duration extending beyond the set stop time is stored; and~~

~~deallocating any allocated next portion of memory not used to record the next portion of the selected compressed audiovisual data having a variable duration extending beyond the set stop time after the selected compressed audiovisual data having the variable duration extending beyond the set stop time is determined to have terminated; and~~

in response to a user request, providing to said user said stored compressed audiovisual data beginning with a portion of said stored compressed audiovisual data having associated with it a first temporal parameter.

2. (Currently Amended) In a system adapted to receive broadcast content on a desired transmission channel from each of a plurality of content sources and forward said received broadcast content to a transport network for distribution to subscribers, a method comprising:

in response to a title plan generated by a time shift scheduler, wherein said title plan includes information identifying a plurality of content and designating a set start time and a set stop time for each of the identified plurality of content, wherein at least one of said plurality of content has a variable duration extending beyond the set stop time, in response to receiving a request for recording content selected from the title plan prior to the start time for the selected content, storing dynamically the selected content in a server and associating with the plurality of content a temporal parameter, wherein storing dynamically at the set-top box comprises:

identifying a content stream associated with the selected compressed audiovisual data using a title identification code, the title identification code identifies the content stream as being time-shifted content and provides a data stamp associated with the content stream associated with the selected compressed audiovisual data;

over-allocating memory in the mass storage device to record the selected compressed audiovisual data having a variable duration extending beyond the set stop time;

determining a final length of the selected compressed audiovisual data; and

deallocating any over-allocated memory not used to record the selected compressed audiovisual data having a variable duration extending beyond the set stop time after the final length of the selected compressed audiovisual data is determined; and

~~allocating a first portion of memory in a mass storage device for recording a first portion of the selected content having a variable duration extending beyond the set stop time for subsequent access;~~

~~utilizing said allocated first portion of memory to record the first portion of the selected content having a variable duration extending beyond the set stop time;~~

~~allocating an additional portion of memory in the mass storage device to record a next portion of the selected content having a variable duration extending beyond the set stop time in response to utilizing said allocated first portion of memory;~~

~~utilizing said allocated additional portion of memory to record the next portion of the selected content having a variable duration extending beyond the set stop time;~~

~~determining when reception of the selected content having the variable duration extending beyond the set stop time has terminated;~~

~~repeating said utilizing and said allocating said additional portion of memory until the selected content having the variable duration extending beyond the set stop time is determined to have terminated so that all of said selected content having a variable duration extending beyond the set stop time is stored; and~~

~~deallocating any allocated next portion of memory not used to record the next portion of the selected content having a variable duration extending beyond the set stop time after selected content having the variable duration extending beyond the set stop time is determined to have terminated; and~~

forwarding the selected content to said transport network for distribution in accordance with said temporal parameter to a requesting subscriber; and

in response to a subscriber request for temporally shifted content associated with the selected content, forwarding the stored selected content to said transport network for distribution to said requesting subscriber.

3. (Previously Presented) The method of claim 2, further comprising:

forwarding to said transport network only the received plurality of content presently requested by any subscriber.

4. (Previously Presented) The method of claim 2, further comprising:

storing, in said server, the plurality of content presently requested by a threshold number of subscribers.

5. (Previously Presented) The method of claim 2, wherein said storing of the desired plurality of content comprises storing a temporally sub-sampled version of the desired plurality of content to generate a fast-forward track.

6. (Previously Presented) The method of claim 2, wherein said storing of said desired plurality of content comprises storing a temporally sub-sampled version of the desired plurality of content in reverse order to generate a reverse track.

7. (Previously Presented) The method of claim 2, wherein said storing of said desired plurality of content comprises storing a version of the desired plurality of content to generate a play track.

8. (Previously Presented) The method of claim 2, further comprising, storing selected plurality of content during a predetermined time interval of a broadcast schedule.

9. (Previously Presented) The method of claim 2, wherein said subscriber request for temporally shifted content is initiated by receiving a subscriber title selection from a time shift interactive programming guide screen.

10. (Previously Presented) The method of claim 2, wherein said subscriber request for temporally shifted content is initiated by receiving a subscriber title selection from a time shift navigation screen.

11. (Previously Presented) The method of claim 2, wherein said subscriber request for temporally shifted content is initiated by receiving a pause or rewind subscriber selection while broadcasting of said desired plurality of content.

12. (Currently Amended) A method for providing video information in an interactive information distribution system to a plurality of subscribers, comprising:

receiving a plurality of scheduled broadcast programs at the set-top box on a desired transmission channel in real-time;

selecting a portion of said broadcast programs according to a title plan generated by a time shift scheduler, wherein said title plan includes information identifying a plurality of content and designating a set start time and a set stop time for each of the identified plurality of content, wherein at least one of said plurality of content has a variable duration extending beyond the set stop time;

processing said selected broadcast programs into temporally adjusted content, such that the temporally adjusted content is associated with said selected broadcast programs;

in response to receiving a request for recording content selected from the title plan prior to the start time for the selected content having a variable duration, storing dynamically said selected content associated with a program and having a variable duration extending beyond the set stop time for later access by subscribers, wherein storing dynamically at the set-top box said selected content having a variable duration extending beyond the set stop time for later access by subscribers comprises:

identifying a content stream associated with the selected compressed audiovisual data using a title identification code, the title identification code identifies the content stream as being time-shifted content and provides a data stamp associated with the content stream associated with the selected compressed audiovisual data;

over-allocating memory in the mass storage device to record the selected compressed audiovisual data having a variable duration extending beyond the set stop time;

determining a final length of the selected compressed audiovisual data; and

deallocating any over-allocated memory not used to record the selected compressed audiovisual data having a variable duration extending beyond the set stop time after the final length of the selected compressed audiovisual data is determined; and

~~allocating a first portion of memory in a mass storage device for recording a first portion of the selected content having a variable duration extending beyond the set stop time;~~

~~utilizing said allocated first portion of memory to record the first portion of the selected content having a variable duration extending beyond the set stop time;~~

~~allocating an additional portion of memory in the mass storage device to record a next portion of the selected content having a variable duration extending beyond the set stop time in response to utilizing said allocated first portion of memory;~~

~~utilizing said allocated additional portion of memory to record the next portion of the selected content having a variable duration extending beyond the set stop time;~~

~~determining when reception of the selected content having the variable duration extending beyond the set stop time has terminated;~~

~~repeating said utilizing and said allocating said additional portion of memory until the selected content having the variable duration extending beyond the set stop time is determined to have terminated so that all of the selected content having a variable duration extending beyond the set stop time is stored; and~~

~~deallocating any allocated next portion of memory not used to record the next portion of the selected content having a variable duration extending beyond the set stop time after selected content having the variable duration extending beyond the set stop time is determined to have terminated; and~~

broadcasting said selected content to said plurality of subscribers via said desired transmission channel; and

in a first mode of operation, associating a temporal parameter to said selected content having a variable duration extending beyond the set stop time and streaming, on-demand, said selected content having the variable duration extending beyond the set stop time and said temporal parameter to those subscribers viewing said selected content, such that said subscribers may interactively activate such selected content having a variable duration extending beyond the set stop time contemporaneously with currently broadcast programs.

13. (Previously Presented) The method of claim 12, further comprising:

providing a navigator list to said subscribers having screens presenting said selected content for viewing and selection,

wherein in an alternate mode of operation, streaming, on-demand, said selected content via said navigator list, such that said subscribers may interactively activate such selected content during viewership of previously scheduled broadcast programs selected from said navigator list.

14. (Previously Presented) The method of claim 13, wherein said subscribers may interactively switch between said first mode and said alternate mode of operation.

15. (Previously Presented) The method of claim 12, wherein said selecting step comprises:

monitoring subscriber viewership; and

selecting those broadcast programs having a viewership exceeding a predetermined metric.

16. (Previously Presented) The method of claim 12, wherein said selecting step further comprises:

generating title plans for identifying content to be temporally adjusted; and

defining a temporal availability window for each program.

17. (Previously Presented) The method of claim 16, wherein said processing step comprises:

generating real-time encoded play tracks, fast-forward tracks, rewind tracks, and entry point data (EPD) files associated with each track, said fast-forward tracks and rewind tracks forming temporally adjusted content.

18. (Previously Presented) The method of claim 17, wherein said processing step further comprises:

encoding said content identified in said title plan to form said temporally adjusted content; and

buffering said encoded content.

19. (Previously Presented) The method of claim 18, wherein said processing step further comprises:

receiving packetized transport streams from at least one encoder; and

inserting title identification codes (TICS) to each packet to enable said transport streams to be identified as said real-time encoded play tracks, fast-forward tracks, and rewind tracks.

20. (Previously Presented) The method of claim 19, further comprising:

generating said EPD files as said fast-forward and rewind tracks are being created.

21. (Previously Presented) The method of claim 20, wherein said EPD files provide transition between streaming of the Play, fast-forward and rewind tracks at appropriate points in response to user commands.

22. (Previously Presented) The method of claim 19, wherein said storing step comprises:

receiving said buffered encoded content;

storing said real-time play tracks in a plurality of extents;

storing said fast-forward tracks in extents in a front to back order; and

storing said rewind tracks in extents in a back to front order.

23. (Previously Presented) The method of claim 22, where said storing step further comprises storing selected content from a particular channel for a fixed window of time.

24. (Previously Presented) The method of claim 22, where said storing step further comprises storing selected content from a plurality of channels.

25. (Previously Presented) The method of claim 12, wherein said first mode of operation further comprises providing an interactive program guide (IPG) to said subscribers having screens presenting said selected content having temporally adjusted content for viewing and selection.

26. (Canceled)

27. (Previously Presented) The method of claim 12, wherein said first mode of operation further comprises receiving a temporal control message from a subscriber selected from the group of temporal control messages consisting of pause, rewind, and fast-forward.

28. (Currently Amended) A system for providing video information in an interactive information distribution system to a plurality of subscribers, comprising:

means for receiving a plurality of scheduled broadcast programs on a desired transmission channel in real-time;

means for selecting a portion of said broadcast programs according to a title plan generated by a time shift scheduler, wherein said title plan includes information identifying a plurality of content and designating a set start time and a set stop time for each of the identified plurality of content, wherein at least one of said broadcast programs has a variable duration extending beyond the set stop time;

means for processing said selected broadcast programs into temporally adjusted content, such that the temporally adjusted content is associated with said selected broadcast programs;

in response to receiving a request for recording content selected from the title plan prior to the start time for the selected content having a variable duration extending beyond the set stop time,

means for storing dynamically at the means for receiving, in response to receiving the request for recording content selected from the title plan prior to the start time for the selected content, said selected content having a variable duration extending beyond the set stop time for later access by subscribers, wherein storing dynamically comprises:

identifying a content stream associated with the selected compressed audiovisual data using a title identification code, the title identification code identifies the content stream as being time-shifted content and provides a data stamp associated with the content stream associated with the selected compressed audiovisual data;

over-allocating memory in the mass storage device to record the selected compressed audiovisual data having a variable duration extending beyond the set stop time;

determining a final length of the selected compressed audiovisual data; and

deallocating any over-allocated memory not used to record the selected compressed audiovisual data having a variable duration extending beyond the set stop time after the final length of the selected compressed audiovisual data is determined; and

~~allocating a first portion of memory in a mass storage device for recording a first portion of the selected content having a variable duration extending beyond the set stop time;~~

~~utilizing said allocated first portion of memory to record the first portion of the selected content having a variable duration extending beyond the set stop time;~~

~~allocating an additional portion of memory in the mass storage device to record a next portion of the selected content having a variable duration extending beyond the set stop time in response to utilizing said allocated first portion of memory;~~

~~utilizing said allocated additional portion of memory to record the next portion of the selected content having a variable duration extending beyond the set stop time;~~

~~determining when reception of the selected content having the variable duration extending beyond the set stop time has terminated;~~

~~repeating said utilizing and said allocating said additional portion of memory until the selected content having the variable duration extending beyond the set stop time is determined to have terminated so that all of the selected content having a variable duration extending beyond the set stop time is stored; and~~

~~deallocating any allocated next portion of memory not used to record the next portion of the selected content having a variable duration extending beyond the set stop time after selected content having the variable duration extending beyond the set stop time is determined to have terminated; and~~

means for broadcasting said selected content to said plurality of subscribers via said desired transmission channel; and

in a first mode of operation, means for associating a temporal parameter to said selected content having a variable duration extending beyond the set stop time and streaming, on-demand, said selected content having a variable duration extending beyond the set stop time and said temporal parameter to those subscribers viewing said selected content, such that said subscribers may interactively activate such selected content having a variable duration extending beyond the set stop time contemporaneously with currently broadcast programs.